



DEPARTMENT ORDER

IN THE MATTER OF

GREENFIELD PENOBSCOT ESTUARY ) NATURAL RESOURCES PROTECTION ACT  
REMEDATION TRUST LLC ) SIGNIFICANT WILDLIFE HABITAT  
Orrington, Penobscot County ) COASTAL WETLAND FILL  
PENOBSCOT ESTUARY REMEDIATION ) WATER QUALITY CERTIFICATION  
L-100073-4C-A-N (approval) ) FINDINGS OF FACT AND ORDER

Pursuant to the provisions of 38 M.R.S. §§ 480-A–480-JJ, Section 401 of the Clean Water Act (33 U.S.C. § 1341), and Chapters 310 and 335 of Department rules, the Department of Environmental Protection has considered the application of GREENFIELD PENOBSCOT ESTUARY REMEDIATION TRUST with the supportive data, agency review comments, public comments, and other related materials on file and FINDS THE FOLLOWING FACTS:

1. PROJECT DESCRIPTION:

A. History of Project: Mercury was illegally discharged into the Penobscot River in Orrington, Maine, by HoltraChem in the late 1960s and early 1970s. A lawsuit was filed in 2000 by Maine People’s Alliance (MPA) and the Natural Resources Defense Council (NRDC) against Mallinckrodt US LLC, the remaining responsible party for the Holtrachem plant. After 22 years of negotiations and settlement discussions, a Consent Decree between MPA, NRDC, and Mallinckrodt was settled upon, and the U.S. District Court in Maine approved the multimillion-dollar settlement for the cleanup of mercury contamination in the Penobscot River Estuary (Estuary). In addition to the cleanup, the settlement includes the creation of two independent environmental response trusts with the goal to accelerate the recovery of the Estuary from the mercury discharge. MPA/NRDC and Mallinckrodt are the Beneficiaries of the two trusts. The Consent Decree requires Mallinckrodt to pay \$187 million for cleanup and other beneficial environmental projects. The settlement also provided up to \$80 million in additional contingent funding. The court appointed an independent trustee, Greenfield Penobscot Estuary Remediation Trust (Greenfield), an affiliate of Greenfield Environmental Trust Group, Inc., to implement measures identified in the Consent Decree to remediate mercury contamination in Estuary sediments. These measures include capping contaminated sediments on approximately 130 acres of intertidal flats with clean material, targeted removal of contaminated and mobile sediments, and monitoring vegetation, fish, birds, surface water, sediment, and organisms that live in sediment for the next 30 to 45 years to evaluate the recovery of the Estuary.

B. Summary: Greenfield submitted a full Natural Resource Protection Act Permit (NRPA) application for a pilot project to install a Thin Layer Cap (TLC) over approximately 6.3 acres (274,428 square feet) of intertidal sediment to help determine if the capping remedy specified in the Consent Decree is feasible, will effectively reduce

exposure to mercury, and if a TLC will protect important natural resources. Project plans submitted included a Performance Monitoring Plan (PMP). The PMP outlines pre- and post-construction monitoring for erosion and sedimentation, intertidal marsh vegetation, and benthic organisms. The pilot project site is located in one cove (“East Cove 3”) off River Road in the Town of Orrington.

C. Current Use of the Site: The intertidal flat is undeveloped. The upland adjacent to the flat consists of several residential properties and the Town of Orrington Picnic Park. The abutting parcels are identified as Lots 021, 023, and 023-A on Map 005 of the Town of Orrington’s tax maps.

2. EXISTING SCENIC, AESTHETIC, RECREATIONAL OR NAVIGATIONAL USES:

The Natural Resources Protection Act (NRPA), in 38 M.R.S. § 480-D(1), requires the applicant to demonstrate that the proposed project will not unreasonably interfere with existing scenic, aesthetic, recreational and navigational uses.

The proposed project is located in the Penobscot River, which is a scenic resource visited by the general public, in part, for the use, observation, enjoyment and appreciation of its natural and cultural visual qualities. This pilot project proposes capping an area of intertidal mudflats with clean sand. During installation of the cap, a barge and associated equipment will be visible at the site. The barge and associated equipment are temporary in nature and will be on site for less than 4 months. The site of the proposed thin-layer cap is located outside of the navigational channel of the river and the barge and associated equipment will not interfere with navigation. After the thin layer cap is installed, the barge and associated equipment will move from the site. The TLC on the pilot project site will not be obviously visible to the general public.

The Department determined that based on the nature of the proposed project and its location, there are no existing recreational or navigational uses of the resource that would be unreasonably impacted.

The Department finds that the proposed activity will not unreasonably interfere with existing scenic, aesthetic, recreational or navigational uses of the Penobscot River.

3. SOIL EROSION:

The NRPA, in 38 M.R.S. § 480-D(2), requires the applicant to demonstrate that the proposed project will not cause unreasonable erosion of soil or sediment nor unreasonably inhibit the natural transfer of soil from the terrestrial to the marine or freshwater environment.

Environmental controls, such as in-water turbidity controls will be deployed to minimize disturbance and movement of contaminated intertidal sediment, minimize turbidity within the water column, and prevent sedimentation and erosion from landside support areas. Monitoring of the environmental controls will be included as part of the site work to

ensure that the controls are effective in protecting natural resources and minimizing the potential for disturbance to habitat during and after the thin-layer cap is placed.

Landside staging, stockpiling, loading, and other support areas will be selected to utilize existing facilities to minimize or eliminate the need for disturbance of new areas. If soil must be disturbed to create support areas or the capping material has the potential to migrate from the support area, appropriate BMPs such as straw wattles, silt fence, or similar controls will be placed downgradient to limit erosion and prevent migration of materials off site or into water resources.

The Department finds that the activity will not cause unreasonable erosion of soil or sediment and will not unreasonably inhibit the natural transfer of soil from terrestrial to the marine or freshwater environment.

#### 4. HABITAT CONSIDERATIONS:

The NRPA, in 38 M.R.S. § 480-D(3), requires the applicant to demonstrate that the proposed project will not unreasonably harm significant wildlife habitat, freshwater wetland plant habitat, threatened or endangered plant habitat, aquatic or adjacent upland habitat, travel corridor, freshwater, estuarine or marine fisheries or other aquatic life.

According to the Department's Geographic Information System (GIS) database there is mapped Significant Wildlife Habitat located at the site, which is Tidal Waterfowl and Wading Bird and Habitat (TWWH).

The project site is an intertidal mudflat between elevations -6.5 mean lower low water (MLLW) and -4.5 feet North American Vertical Datum of 1988 (NAVD 88) in the southern portion of East Cove 3 and -6.5 to -1.5 feet NAVD 88 in the northern portion of the intertidal flat. The intertidal flats at this site are mostly devoid of vegetation with a shoreline fringe of low marsh along the southern area of intertidal flats that is 0.8 acres (34,850 square feet) in size. The low marsh area is located between approximately -4.0 and -2.0 feet NAVD 88. The low marsh vegetation consists of primarily common three-square bulrush (*Schoenoplectus pungens*) and also includes populations of special concern freshwater tidal marsh plants Horned Pondweed (*Zanichellia palustris*), Spongy-leaved Arrowhead (*Sagittaria montevidensis* ssp. *spongiosa*), Atlantic Mudwort (*Limosella australis*), and Water Pimpernel (*Samolus valerandi* L. ssp. *parviflorus*).

The Maine Department of Inland Fisheries and Wildlife (MDIFW) reviewed the proposed project and stated that the project is located within a mapped moderate-value Tidal Waterfowl and Wading Bird Habitat (TWWH), which is a Significant Wildlife Habitat. The habitat in the area is a foraging habitat for a variety of birds. The vegetated low marsh area is an important component of the mapped habitat. As outlined in the applicant's Performance Management Plan (PMP), MDIFW supports pre-construction survey efforts for the State Rare and Endangered plant species and an annual evaluation of the movement of the thin layer cap and ecosystem services. MDIFW recommends that the construction schedule should avoid May 1 through July 15, a sensitive period for

wading bird breeding, nesting, and brood rearing, and avoid from December 15 through March 15, a critical period for coastal waterfowl over wintering. Provided the proposed construction schedule is followed, no adverse impacts to these species are anticipated during construction.

The Maine Natural Areas Program (MNAP) in its review comments, dated June 24, 2025, that the project area includes populations of rare, special concern freshwater tidal marsh plants Horned Pondweed (*Zanichellia palustris*) and Spongy-leaved Arrowhead (*Sagittaria montevidensis* ssp. *spongiosa*). MNAP stated that placing a cap of coarse sand fill over these plants would likely adversely affect these species. In response, the applicant performed a botanical site survey on September 18, 2025, which MNAP attended. Following the botanical survey and site visit, MNAP provided additional comments, dated December 24, 2025. In the additional comments, MNAP added an additional rare, special concern plant species observed at the site September 18, 2025, Atlantic mudwort (*Limosella australis*). MNAP recommended a vegetation monitoring protocol that includes the following survey metrics:

1. Initial survey to record total percent cover of all vegetation within the vegetated areas of proposed impact. This should include percent cover of all State listed rare plant species, as well as percent cover of dominant species. (The 2025 survey may suffice for this data point);
2. Subsequent yearly, post-construction surveys to quantify revegetation of dominant species and/or colonization of new species, measured as percent cover;
3. Yearly post-construction estimates of percent cover and population sizes of any State listed plant species; and
4. Measurements of the depth of silt accretion and/or depth of the mixing zone of newly deposited soils with the thin layer substrate. This is mentioned in the Performance Monitoring Plan; MNAP's interest here is the correlation of this depth with recolonization (if any) of the site's rare species.

MNAP recommended the monitoring be performed for up to five to seven years.

MNAP also recommended that the applicant develop a compensatory mitigation plan to be submitted in the event that the monitoring identifies a lack of persistence or recolonization of the rare species.

The Department of Marine Resources (DMR) stated that the project is in an area that has both commercial and recreational marine use. No shellfish, marine worm, or eelgrass resources have been mapped in this location and would not be expected to occur given the location of the site in the upper estuary. DMR visited the site October 28, 2025, and dug several sampling pits in the mudflat and did not find any commercially valuable shellfish or marine worms. Fish species that may be present in the general area include alewives, American eel, shad, menhaden, blueback herring, and striped bass. The area is mapped as Essential Fish Habitat for Atlantic salmon, Atlantic sturgeon, and shortnose sturgeon. Though there will be direct impact to marine resources and likely negative impacts to benthic species in the project footprint from the capping, DMR appreciates the effort that has been taken to reduce long-term impacts from mercury on the intertidal ecosystem. DMR stated that the overall benefit of reducing mercury exposure should increase the health of the system in the long-term. DMR agrees with the proposed time

of year work window and impacts to fish species that may utilize this location are likely to be short-term and minimal. Further, DMR stated no impact on traditional fishing, recreation, navigation, or riparian access is expected.

The Department's *Significant Wildlife Habitat* rules, 06-096 C.M.R. ch. 335 (last amended January 7, 2014), interpret and elaborate on the NRPA criteria for obtaining a permit. The rules guide the Department in its determination of whether a project's impacts would be unreasonable. A proposed project would generally be found to be unreasonable if it would degrade the significant wildlife habitat, disturb the subject wildlife, or affect the continued use of the significant wildlife habitat by the subject wildlife, either during or as a result of the activity, and there is a practicable alternative to the project that would be less damaging to the environment. Each application for a NRPA permit that involves a significant wildlife habitat alteration must provide an analysis of alternatives in order to demonstrate that a practicable alternative does not exist.

A. Avoidance. An applicant must submit an analysis of whether there is a practicable alternative to the project that would be less damaging to the environment and this analysis is considered by the Department in its assessment of the reasonableness of any impacts. The applicant submitted an alternatives analysis for the proposed project completed by Integral Consulting Inc., dated February 2025. The overall objective of the project is reducing mercury exposures and accelerating the recovery of the Estuary. The pilot project purpose is to evaluate the effectiveness of a thin layer cap (TLC) at reducing mercury concentrations and exposure in intertidal sediments, demonstrate the stability of the TLC to enable the benefits of the TLC to continue, evaluate the effect of the TLC on the ecology and habitat at the site, and evaluate the effect of the TLC on shoreline stability.

The Preferred Alternative would consist of placing a nominal 4- to 6-in.-thick layer of predominantly coarse sand material over approximately 6.3 acres of intertidal flats and a portion of low marsh in East Cove 3, as outlined above in Finding 1, Project Description. The applicant considered seven alternatives to the Preferred Alternative, including Alternative 1, No Action; Alternative 2, Alternative cap material; Alternative 3, Different or Multiple Locations; Alternative 4, Smaller Study Size; Alternative 5, Isolation Cap; Alternative 6, Amended TLC; and Alternative 7, Dredge Removal of Contaminated Sediments. Each of these alternatives were evaluated for achievement of the overall project purpose, logistical and technical practicality, cost, and environmental effects.

Alternative 1 (No Action) does not meet project purpose, is practical to implement, has no cost, and would not result in adverse effects to aquatic resources. Long-term beneficial effects from reduced mercury exposure and accelerated recovery of the Estuary would not be realized. Therefore, the no-action alternative would be less beneficial to the natural environment compared to the Preferred Alternative.

Alternative 2 (Alternative Cap Material) meets the project purpose as it is a capping remedy consistent with the Consent Decree and would provide relevant information to the full-scale remediation project.

Alternative 3 (Different or Multiple Locations) would fulfill the overall project purpose, however depending upon the size and/or locations of the capping areas, the resulting information is expected to be limited compared to the Preferred Alternative. This will limit the evaluation of construction approach options and performance of the TLC and reduce data needed to determine the scalability of the remedial action over the 130-acre extent identified in the Consent Decree. In addition, a smaller TLC pilot area would require additional TLC construction in East Cove 3 in the future if the pilot is a success and full-scale TLC construction is determined to be feasible, effective, and protective of the ecosystem. If placed in a different location or split across multiple locations, Alternative 3 introduces unacceptable schedule risk due to the uncertainty associated with seeking alternative site access at a location (or multiple locations) other than East Cove 3. Access may not be attainable in a reasonable time frame from owners of contiguous property adjacent to an intertidal area to achieve the targeted minimum capping area size. Therefore, this alternative is considered logistically impracticable. Alternative 3 would also be significantly more costly than the Preferred Alternative due to multiple mobilization events (Multiple Locations), and potentially due to time lost associated with securing site access. Alternative 3 would result in similar effects to the aquatic resources because the methodology and approximate extent of TLC placement is similar between the two alternatives. However, multiple mobilizations required for more than one location would have an adverse effect on the environment, in particular protected fish, because in water work would be extended to many locations throughout the Estuary in one construction season, thus expanding the duration of work in the water. This would increase the total amount of disturbance from vessel mobilization, positioning, and installation of supporting equipment (e.g., moored water quality stations, silt curtains [if required]) and the duration of the overall disturbance due to the increased schedule required to implement the alternative.

Alternative 4 (Smaller Study Size) would fulfill the overall project purpose, however depending upon the size and/or locations of the capping areas, the resulting information is expected to be limited compared to the Preferred Alternative. Alternative 4 would be feasible to design and construct, would cost less due to the smaller size, and would result in a reduced TLC cap area and reduce the extent of temporal impact associated with TLC placement. However, implementing a reduced size pilot study would generate less data and compromise feasibility evaluations, including evaluation of potential impacts on the natural environment.

Alternative 5 (Isolation Cap) would be feasible to design and construct, would be more expensive due to the cost and impact of additional fill material and construction considerations associated with placing multiple cap layers. Construction of an isolation cap would have negative impacts on the ecosystem from the effects of the increased cap material placement in the intertidal area. Construction of an isolation cap would require placing two to three times more clean material, in multiple lifts, within the same area.

Isolation caps also increase total cap thickness (from a 4- to 6-in.-thick TLC to a minimum 1-ft-thick or thicker isolation cap), increasing surface elevations unless dredging is performed prior to capping. Increases in surface elevations could increase flooding potential and/or erosive effects due to reductions in river flood control capacity and changes in the river hydrodynamics, respectively. Selection of the minimum 1-ft-thick isolation cap would reduce inundation periods adversely affecting the intertidal system.

Alternative 6 (Amended TLC) would be feasible to design and construct, would have a substantially higher cost compared to the Preferred Alternative due to the cost of material procurement, stockpiling, amendment mixing, and cap placement. Alternative 6, which entails amending the TLC with activated carbon, may reduce mercury bioaccumulation in sediments or improvement of sediment habitat quality however it may also reduce the abundance of organisms recolonizing treated areas.

Alternative 7 (Dredge Removal of Contaminated Sediments) is not consistent with the cap placement requirement specified in the Consent Decree, presents additional logistical and technical challenges associated with dredging, processing (dewatering, stabilizing, and transport), and disposal or beneficial re-use of contaminated sediment. Processing of the dredged sediment also requires an offsite upland location that can be difficult and time intensive to identify and secure. After dredging is complete, the same challenges inherent in capping must be addressed during the backfill process. Depending on the dredge depth and the backfill design, additional construction time may be required compared to the Preferred Alternative to reach design grades, especially if an engineered slope is required or if a greater volume of backfill material is required compared to the cap material volume of the Preferred Alternative.

The above analysis demonstrates that the Preferred Alternative is the least environmentally damaging alternative. The project location, construction methods, and materials chosen for the Preferred Alternative were carefully selected to achieve the overall project purpose, be practicable to implement in a reasonable time frame, and provide the maximum net benefit to the Estuary consistent with the Consent Decree. East Cove 3 has a combination of features, making it well suited for the TLC Pilot. East Cove 3 is a relatively large area with a range of features similar to many coves within Orrington Reach (e.g., narrow and wide flat areas, drainage features, and varying sediment grain size distributions), contains an area with relatively high concentrations of mercury in surficial sediment, and is in a location where contiguous property owners have granted access for the project. The cove is large enough to accommodate a single, sufficiently sized TLC cap. East Cove 3 also includes an area of vegetated low marsh, which allows for evaluation of the benefit of placing a TLC cap within a portion of the low marsh. Existing data and literature pertaining to thin layer capping activities in marshes indicate marsh vegetation can survive or reestablish without intervention for placement of capping material up to approximately 6 in. thick. Therefore, the Preferred Alternative is anticipated to result in minimal short-term adverse environmental effects while maximizing data acquisition necessary to ensure the effective implementation of TLC capping across a larger 130-acre portion of the Estuary. Of the eight alternatives

considered, only the Preferred Alternative would meet the overall project purpose, be practicable to implement, and minimize impacts to the environment.

B. Minimal Alteration. The amount of habitat to be altered and disturbance of the subject wildlife must be kept to the minimum amount necessary for meeting the overall purpose of the project.

The project location, construction methods, and materials chosen for the Preferred Alternative were carefully selected to achieve the overall project purpose, be practicable to implement in a reasonable time frame, and provide the maximum net benefit to the Estuary consistent with the Consent Decree. East Cove 3 has a combination of features, making it well suited for the TLC Pilot. East Cove 3 is a relatively large area with a range of features similar to many coves within Orrington Reach (e.g., narrow and wide flat areas, drainage features, and varying sediment grain size distributions), contains an area with relatively high concentrations of mercury in surficial sediment, and is in a location where contiguous property owners have granted access for the project. The cove is large enough to accommodate a single, sufficiently sized TLC cap. East Cove 3 also includes an area of vegetated low marsh, which allows for evaluation of the benefit of placing a TLC cap within a portion of the low marsh. Existing data and literature pertaining to thin layer capping activities in marshes indicate marsh vegetation can survive or reestablish without intervention for placement of capping material up to approximately 6 in. thick. Therefore, the Preferred Alternative is anticipated to result in minimal short-term adverse environmental effects while maximizing data acquisition necessary to ensure the effective implementation of TLC capping across a larger 130-acre portion of the Estuary. Of the eight alternatives considered, only the Preferred Alternative would meet the overall project purpose, be practicable to implement, and minimize impacts to the environment.

C. Compensation. In accordance with Chapter 335, § 3(D)(1), if an impact to significant wildlife habitat will cause habitat functions or values to be lost or degraded, compensation is required to achieve the goal of no net loss of significant wildlife habitat functions and values.

Immediately prior to the TLC placement, and annually in the same season in which the preplacement survey is completed, for up to 5 years following construction, vegetated wetlands located within the pilot study area will be delineated in accordance with the Corps of Engineers Wetlands Delineation Manual (USACE 1987) and the associated Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region (USACE 2012), and vegetation sampling will follow the recommendations for survey metrics in the MNAP comments dated December 24, 2025, as outlined above in Finding 4. The results of the post-TLC construction wetland delineation(s) and vegetation survey data will be compared to the pre-construction wetland delineation and vegetation survey data in order to assess impacts to the TWWH, a Significant Wildlife Habitat. If a reduction in the acreage of vegetated wetlands and rare vegetation is observed in the habitat area, the applicant will consult with DEP, MDIFW, DMR, and MNAP and an evaluation will be made to determine if the reduction is a result of project activities and if it can be corrected. If the impact to the vegetated

wetlands and rare vegetation cannot be corrected by the applicant, the applicant will submit a compensatory mitigation plan to the regulatory agencies for review and approval. If a compensatory mitigation plan is required, the applicant proposes to make a contribution into the In-Lieu Fee (ILF) program of the Maine Natural Resource Conservation Program (MNRCP) in an amount to be determined in consultation with the regulatory and natural resource agencies at that time.

The Department finds that the applicant has avoided and minimized Significant Wildlife Habitat impacts to the greatest extent practicable, the activity will not unreasonably harm any freshwater wetland plant habitat, threatened or endangered plant habitat, aquatic or adjacent upland habitat, travel corridor, freshwater, estuarine or marine fisheries or other aquatic life, and that the proposed project represents the least environmentally damaging alternative that meets the overall purpose of the project provided the applicant avoids construction from May 1 through July 15 and from December 15 through March 15 and if annual monitoring determines there has been a reduction of the habitat that cannot be corrected by the applicant, the applicant submits an ILF payment as described above.

5. WATER QUALITY CONSIDERATIONS:

As discussed in Finding 3, the applicant proposes to use erosion and sediment control during construction to minimize impacts to water quality from siltation.

The Department does not anticipate that the proposed project will violate any state water quality law, including those governing the classification of the State's waters.

The waters in the area are used for recreational boating and fishing. As discussed above in Section 4., and in comments from DMR, the waters affected by the proposed project are not used by shellfish or commercially valuable marine worms. Fish species that may be present in the general area include alewives, American eel, shad, menhaden, blueback herring, and striped bass. The area is mapped as Essential Fish Habitat for Atlantic salmon, Atlantic sturgeon, and shortnose sturgeon. DMR stated that the overall benefit of reducing mercury exposure should increase the health of the system in the long-term. DMR agrees with the proposed time of year work window and impacts to fish species that may utilize this location are likely to be short-term and minimal. Further, DMR stated no impact on traditional fishing, recreation, navigation, or riparian access is expected.

Based on the location of the proposed project in the intertidal zone, the construction methods, and the project design and the Findings above, the Department finds that the proposed project will maintain and protect existing uses and the level of water quality necessary to protect those existing uses, will protect the existing water quality of affected waters, will not significantly impair the viability of the existing populations of estuarine and marine life, and will not result in a significant degradation of existing recreation, fishing and commercial harvesting of such estuarine and marine species.

6. WETLANDS AND WATERBODIES PROTECTION RULES:

The applicant proposes to directly alter 6.3 acres (274,428 square feet) of an intertidal area of coastal wetland to construct the proposed thin-layer cap. Approximately 0.8 acres (34,850 square feet) of the total coastal wetland area is low marsh with the remainder being tidal mudflat. Coastal wetlands are wetlands of special significance (WOSS).

The *Wetlands and Waterbodies Protection Rules*, 06-096 C.M.R. ch. 310 (last amended November 11, 2018), interpret and elaborate on the Natural Resources Protection Act (NRPA) criteria for obtaining a permit. The rules guide the Department in its determination of whether a project's impacts would be unreasonable. A proposed project would generally be found to be unreasonable if it would cause a loss in wetland area, functions and values and there is a practicable alternative to the project that would be less damaging to the environment. Each application for a NRPA permit that involves a natural resource alteration must provide an analysis of alternatives in order to demonstrate that a practicable alternative does not exist, as discussed in Finding 4.

In this case, the Consent Decree required remediation is intended to reduce mercury exposure and accelerate recovery of the Penobscot River Estuary. The pilot project purpose is to evaluate the effectiveness of a thin layer cap (TLC) at reducing mercury concentrations and exposure in intertidal sediments, demonstrate the stability of the TLC to enable the benefits of the TLC to continue, evaluate the effect of the TLC on the ecology and habitat at the site, and evaluate the effect of the TLC on shoreline stability. As outlined above in Finding 4, the applicant proposes to monitor the pilot project site annually for up to five years, providing monitoring progress reports annually to Maine DEP, MDIFW, MNAP, and DMR as well as consult with the agencies in assessing the impacts to the habitat. Remediation of the mercury-contaminated intertidal sediment will enhance the coastal wetland, and the Department is waiving mitigation and compensation for impacts to the coastal wetland.

The Department finds that the applicant has avoided and minimized coastal wetland impacts to the greatest extent practicable, and that the proposed project represents the least environmentally damaging alternative that meets the overall purpose of the project.

7. OTHER CONSIDERATIONS:

The Department finds, based on the design, proposed construction methods, and location, the proposed project will not inhibit the natural transfer of soil from the terrestrial to the marine environment, will not interfere with the natural flow of any surface or subsurface waters, and will not cause or increase flooding. The proposed project is not located in a coastal sand dune system, is not a crossing of an outstanding river segment, and does not involve dredge spoils disposal or the transport of dredge spoils by water.

BASED on the above findings of fact, and subject to the conditions listed below, the Department makes the following conclusions pursuant to 38 M.R.S. §§ 480-A–480-JJ and Section 401 of the Clean Water Act (33 U.S.C. § 1341):

- A. The proposed activity will not unreasonably interfere with existing scenic, aesthetic, recreational, or navigational uses.
- B. The proposed activity will not cause unreasonable erosion of soil or sediment.
- C. The proposed activity will not unreasonably inhibit the natural transfer of soil from the terrestrial to the marine or freshwater environment.
- D. The proposed activity will not unreasonably harm any significant wildlife habitat, freshwater wetland plant habitat, threatened or endangered plant habitat, aquatic or adjacent upland habitat, travel corridor, freshwater, estuarine, or marine fisheries or other aquatic life provided that prior to construction the applicant makes a contribution to the In-Lieu Fee program as described in Finding 4.
- E. The proposed activity will not unreasonably interfere with the natural flow of any surface or subsurface waters.
- F. The proposed activity will not violate any state water quality law including those governing the classifications of the State's waters.
- G. The proposed activity will not unreasonably cause or increase the flooding of the alteration area or adjacent properties.
- H. The proposed activity is not on or adjacent to a sand dune.
- I. The proposed activity is not on an outstanding river segment as noted in 38 M.R.S. § 480-P.

THEREFORE, the Department APPROVES the above noted application of *Greenfield Penobscot Estuary Remediation Trust LLC* as described in Finding 1, SUBJECT TO THE ATTACHED CONDITIONS, and all applicable standards and regulations:

1. Standard Conditions of Approval, a copy attached.
2. The applicant shall take all necessary measures to ensure that its activities or those of their agents do not result in measurable erosion of soil on the site during the construction of the project covered by this approval.
3. Severability. The invalidity or unenforceability of any provision, or part thereof, of this License shall not affect the remainder of the provision or any other provisions. This


License shall be construed and enforced in all respects as if such invalid or unenforceable provision or part thereof had been omitted.

- 4. The applicant shall avoid construction from May 1 through July 15 and from December 15 through March 15.
- 5. Immediately prior to the TLC placement, and annually in the same season in which the preplacement survey is completed, for up to 5 years following construction, vegetated wetlands located within the pilot study area shall be delineated in accordance with the Corps of Engineers Wetlands Delineation Manual (USACE 1987) and the associated Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region (USACE 2012), and vegetation sampling shall follow the recommendations for survey metrics in the MNAP comments dated December 24, 2025, as outlined above in Finding 4. The results of the post-TLC construction wetland delineation(s) and vegetation survey data shall be compared to the pre-construction wetland delineation and vegetation survey data in order to assess impacts to the TWWH, a Significant Wildlife Habitat. If a reduction in the acreage of vegetated wetlands and rare vegetation is observed in the habitat area, the applicant shall consult with MDEP, MDIFW, MDMR, and MNAP and an evaluation shall be made to determine if the reduction is a result of project activities and if it can be corrected. If the impact to the vegetated wetlands and rare vegetation cannot be corrected by the applicant, the applicant shall submit a compensatory mitigation plan to the regulatory agencies for review and approval. If a compensatory mitigation plan is required, the applicant shall make a contribution into the In-Lieu Fee (ILF) program of the Maine Natural Resource Conservation Program (MNRCP) in an amount to be determined in consultation with the regulatory and natural resource agencies at that time.

THIS APPROVAL DOES NOT CONSTITUTE OR SUBSTITUTE FOR ANY OTHER REQUIRED STATE, FEDERAL OR LOCAL APPROVALS NOR DOES IT VERIFY COMPLIANCE WITH ANY APPLICABLE SHORELAND ZONING ORDINANCES.

DONE AND DATED IN AUGUSTA, MAINE, THIS 28<sup>th</sup> DAY OF JANUARY, 2026.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY:   
For: Melanie Loyzim, Commissioner

PLEASE NOTE THE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES.

DV/L100073-4C-A-N



## Natural Resources Protection Act (NRPA) Standard Conditions

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THE FOLLOWING STANDARD CONDITIONS SHALL APPLY TO ALL PERMITS GRANTED UNDER THE NATURAL RESOURCES PROTECTION ACT, 38 M.R.S. §§ 480-A ET SEQ., UNLESS OTHERWISE SPECIFICALLY STATED IN THE PERMIT.

- A. Approval of Variations From Plans. The granting of this permit is dependent upon and limited to the proposals and plans contained in the application and supporting documents submitted and affirmed to by the applicant. Any variation from these plans, proposals, and supporting documents is subject to review and approval prior to implementation.
- B. Compliance With All Applicable Laws. The applicant shall secure and comply with all applicable federal, state, and local licenses, permits, authorizations, conditions, agreements, and orders prior to or during construction and operation, as appropriate.
- C. Erosion Control. The applicant shall take all necessary measures to ensure that his activities or those of his agents do not result in measurable erosion of soils on the site during the construction and operation of the project covered by this Approval.
- D. Compliance With Conditions. Should the project be found, at any time, not to be in compliance with any of the Conditions of this Approval, or should the applicant construct or operate this development in any way other the specified in the Application or Supporting Documents, as modified by the Conditions of this Approval, then the terms of this Approval shall be considered to have been violated.
- E. Time frame for approvals. If construction or operation of the activity is not begun within four years, this permit shall lapse and the applicant shall reapply to the Board for a new permit. The applicant may not begin construction or operation of the activity until a new permit is granted. Reapplications for permits may include information submitted in the initial application by reference. This approval, if construction is begun within the four-year time frame, is valid for seven years. If construction is not completed within the seven-year time frame, the applicant must reapply for, and receive, approval prior to continuing construction.
- F. No Construction Equipment Below High Water. No construction equipment used in the undertaking of an approved activity is allowed below the mean high water line unless otherwise specified by this permit.
- G. Permit Included In Contract Bids. A copy of this permit must be included in or attached to all contract bid specifications for the approved activity.
- H. Permit Shown To Contractor. Work done by a contractor pursuant to this permit shall not begin before the contractor has been shown by the applicant a copy of this permit.

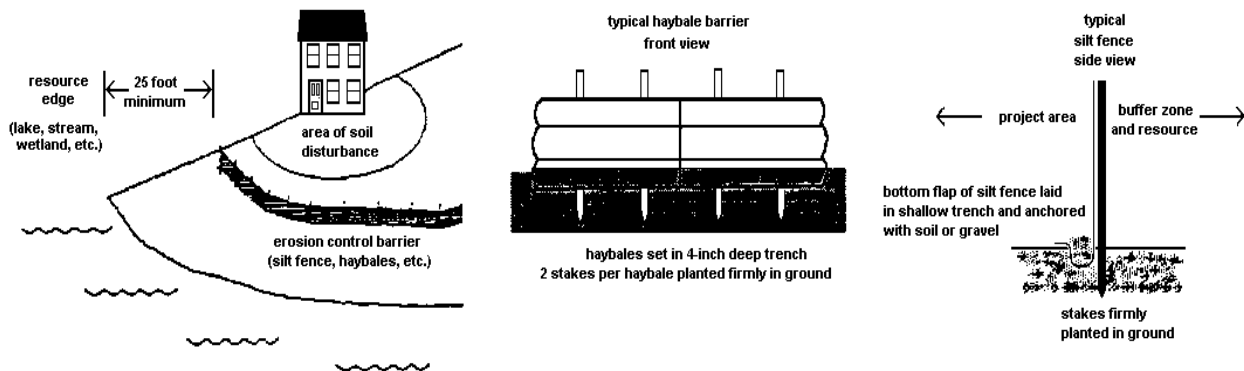


STATE OF MAINE  
**DEPARTMENT OF ENVIRONMENTAL PROTECTION**  
 17 STATE HOUSE STATION, AUGUSTA, MAINE 04333

### Erosion Control for Homeowners

#### Before Construction

1. If you have hired a contractor, make sure you discuss your permit with them. Talk about what measures they plan to take to control erosion. Everybody involved should understand what the resource is, and where it is located. Most people can identify the edge of a lake or river. However, the edges of wetlands are often not so obvious. Your contractor may be the person actually pushing dirt around, but you are both responsible for complying with the permit.
2. Call around to find where erosion control materials are available. Chances are your contractor has these materials already on hand. You probably will need silt fence, hay bales, wooden stakes, grass seed (or conservation mix), and perhaps filter fabric. Places to check for these items include farm & feed supply stores, garden & lawn suppliers, and landscaping companies. It is not always easy to find hay or straw during late winter and early spring. It also may be more expensive during those times of year. Plan ahead – buy a supply early and keep it under a tarp.
3. Before any soil is disturbed, make sure an erosion control barrier has been installed. The barrier can be either a silt fence, a row of staked hay bales, or both. Use the drawings below as a guide for correct installation and placement. The barrier should be placed as close as possible to the soil-disturbance activity.
4. If a contractor is installing the erosion control barrier, double check it as a precaution. Erosion control barriers should be installed “on the contour,” meaning at the same level or elevation across the land slope, whenever possible. This keeps stormwater from flowing to the lowest point along the barrier where it can build up and overflow or destroy the barrier.



#### During Construction

1. Use lots of hay or straw mulch on disturbed soil. The idea behind mulch is to prevent rain from striking the soil directly. It is the force of raindrops hitting the bare ground that makes the soil begin to move downslope with the runoff water, and cause erosion. More than 90% of erosion is prevented by keeping the soil covered.
2. Inspect your erosion control barriers frequently. This is especially important after a rainfall. If there is muddy water leaving the project site, then your erosion controls are not working as intended. You or your contractor then need to figure out what can be done to prevent more soil from getting past the barrier.
3. Keep your erosion control barrier up and maintained until you get a good and healthy growth of grass and the area is permanently stabilized.

**After Construction**

1. After your project is finished, seed the area. Note that all ground covers are not equal. For example, a mix of creeping red fescue and Kentucky bluegrass is a good choice for lawns and other high-maintenance areas. But this same seed mix is a poor selection for stabilizing a road shoulder or a cut bank that you don't intend to mow. Your contractor may have experience with different seed mixes, or you might contact a seed supplier for advice.
2. Do not spread grass seed after September 15. There is the likelihood that germinating seedlings could be killed by a frost before they have a chance to become established. Instead, mulch the area with a thick layer of hay or straw. In the spring, rake off the mulch and then seed the area. Don't forget to mulch again to hold in moisture and prevent the seed from washing away or being eaten by birds or other animals.
3. Keep your erosion control barrier up and maintained until you get a good and healthy growth of grass and the area is permanently stabilized.

**Why Control Erosion?****To Protect Water Quality**

When soil erodes into protected resources such as streams, rivers, wetlands, and lakes, it has many bad effects. Eroding soil particles carry phosphorus to the water. An excess of phosphorus can lead to explosions of algae growth in lakes and ponds called blooms. The water will look green and can have green slime in it. If you are near a lake or pond, this is not pleasant for swimming, and when the soil settles out on the bottom, it smothers fish eggs and small animals eaten by fish. There are many other effects as well, which are all bad.

**To Protect the Soil**

It has taken thousands of years for our soil to develop. Its usefulness is evident all around us, from sustaining forests and growing our garden vegetables, to even treating our septic wastewater! We cannot afford to waste this valuable resource.

**To Save Money (\$\$)**

Replacing topsoil or gravel washed off your property can be expensive. You end up paying twice because State and local governments wind up spending your tax dollars to dig out ditches and storm drains that have become choked with sediment from soil erosion.



# DEP INFORMATION SHEET

## Appeals to the Board of Environmental Protection

Date: November 2024    Contact: [Clerk.BEP@maine.gov](mailto:Clerk.BEP@maine.gov) or (207) 314-1458

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### SUMMARY

This document provides information regarding a person's rights and obligations in filing an administrative or judicial appeal of: (1) a final license decision made by the Commissioner of the Department of Environmental Protection ("DEP"); or (2) an insurance claim-related decision ("Clean-up and Response Fund decision") made by the Commissioner or the Office of State Fire Marshal pursuant to [38 M.R.S. § 568-A](#).

Except as explained below, there are two methods available to an aggrieved person seeking to appeal a license decision made by the Commissioner or a Clean-up and Response Fund decision: (1) an administrative appeal before the Board of Environmental Protection ("Board"); or (2) a judicial appeal before Maine's Superior Court. An aggrieved person seeking review of a license decision or Clean-up and Response Fund decision made by the Board may seek judicial review in Maine's Superior Court.

An appeal of a license decision made by the DEP Commissioner or the Board regarding an application for an expedited wind energy development ([35-A M.R.S. § 3451\(4\)](#)), a general permit for an offshore wind energy demonstration project ([38 M.R.S. § 480-HH\(1\)](#)), or a general permit for a tidal energy demonstration project ([38 M.R.S. § 636-A](#)) must be taken to the Supreme Judicial Court sitting as the Law Court.

### I. ADMINISTRATIVE APPEALS TO THE BOARD

#### **LEGAL REFERENCES**

A person filing an appeal with the Board should review the applicable rules and statutes, including the DEP's Chapter 2 rule, [Processing of Applications and Other Administrative Matters \(06-096 C.M.R. ch. 2\)](#); Organization and Powers, [38 M.R.S. §§ 341-D\(4\)](#) and [346](#); and the Maine Administrative Procedure Act, [5 M.R.S. § 11001](#).

#### **DEADLINE TO SUBMIT AN APPEAL TO THE BOARD**

Within 30 calendar days of the date of: (1) a final license decision of the Commissioner; or (2) a Clean-up and Response Fund decision, an aggrieved person may appeal to the Board for review of that decision. "Aggrieved person" means any person whom the Board determines may suffer a particularized injury as a result of a Commissioner's license decision or a Clean-up and Response Fund decision. A complete appeal must be received by the Board no later than 5:00 p.m. on the 30<sup>th</sup> calendar day of the decision being appealed. With limited exception, untimely appeals will be dismissed.

#### **HOW TO SUBMIT AN APPEAL TO THE BOARD**

An appeal to the Board may be submitted via postal mail or electronic mail (e-mail) and must contain all signatures and required appeal contents. An electronic filing must contain the scanned original signature of the appellant(s). The appeal documents must be sent to the following address.

Chair, Board of Environmental Protection  
c/o Board Clerk  
17 State House Station  
Augusta, ME 04333-0017  
[Clerk.BEP@maine.gov](mailto:Clerk.BEP@maine.gov)

The DEP may also request the submittal of the original signed paper appeal documents when the appeal is filed electronically. The risk of material not being received in a timely manner is on the sender, regardless of the method used.

At the time an appeal is filed with the Board, the appellant must send a copy of the appeal to: (1) the Commissioner of the DEP (Maine Department of Environmental Protection, 17 State House Station, Augusta, Maine 04333-0017); (2) the licensee, if the appellant is not the licensee; and (3) if a hearing was held on the application, any intervenors in that hearing proceeding. For appeals of Clean-up and Response Fund decisions made by the State Fire Marshal, the appellant must also send a copy of the appeal to the State Fire Marshal. **Please contact the Board Clerk at [clerk.bep@maine.gov](mailto:clerk.bep@maine.gov) or DEP staff at 207-287-7688 with questions or for contact information regarding a specific license or Clean-up and Response Fund decision.**

#### **REQUIRED APPEAL CONTENTS**

A written appeal must contain the information specified in Chapter 2, section 23(B) or section 24(B), as applicable, at the time the appeal is submitted. **Please carefully review these sections of Chapter 2**, which is available online at <https://www.maine.gov/sos/cec/rules/06/chaps06.htm>, or contact the Board Clerk to obtain a copy of the rule. Failure to comply with the content of appeal requirements may result in the appeal being dismissed pursuant to Chapter 2, section 23(C) or section 24(C).

#### **OTHER CONSIDERATIONS IN APPEALING A DECISION TO THE BOARD**

1. *Be familiar with the administrative record.* Generally, the record on which the Board decides an appeal is limited to the record prepared by the agency in its review of the application, any supplemental evidence admitted to the record by the Board Chair and, if a hearing is held on the appeal, additional evidence admitted during the hearing. A person who seeks to appeal a decision to the Board is encouraged to contact the DEP (or State Fire Marshal for Clean-up and Response Fund decisions made by that agency) to inspect the record before filing an appeal.
2. *Be familiar with the applicable rules and laws.* An appellant is required to identify the licensing criterion or standard the appellant believes was not satisfied in issuing the decision, the bases of the objections or challenges, and the remedy sought. Prior to filing an appeal, review the decision being appealed to identify the rules and laws that are applicable to the decision. An appellant may contact the DEP or Board staff with any questions regarding the applicable rules and laws or the appeal procedure generally.
3. *The filing of an appeal does not operate as a stay to any decision.* If a license has been granted and it has been appealed, the license normally remains in effect pending the processing of the appeal. Unless a separate stay of the decision is requested and granted (*see* Chapter 2, section 23(M)), the licensee may proceed with an approved project pending the outcome of the appeal. Any activity initiated in accordance with the approved license during the pendency of the appeal comes with the risk of not knowing the outcome of the appeal, including the possibility that the decision may be reversed or modified by the Board.
4. *Alternative dispute resolution.* If the appeal participants agree to use mediation or another form of alternative dispute resolution (“ADR”) to resolve the appeal and so notify the Board, the Board will not hear the matter until the conclusion of that effort, provided the participants engaged in the alternative dispute resolution demonstrate satisfactory progress toward resolving the issues. *See* Chapter 2, section 23(H) or contact the Board Executive Analyst (contact information below) for more information on the ADR provision.

## WHAT TO EXPECT ONCE YOU FILE A TIMELY APPEAL WITH THE BOARD

The Board will acknowledge receipt of each appeal and develop a service list of appeal participants and any interested persons for use in the appeal proceeding. Electronic mail (e-mail) is the preferred method of communication during an appeal proceeding; however, the Board reserves the right to require paper copies of all filings. Once the Board Chair rules on the admissibility of all proposed supplemental evidence, the licensee (if the licensee is not the appellant) may respond to the merits of the appeal. Instructions specific to each appeal will be provided in correspondence from the Board Executive Analyst or Board Chair.

Generally, once all filings in an appeal proceeding are complete, the DEP staff will assemble a packet of materials for the Board (Board packet), including a staff recommendation in the form of a proposed Board Order. Once available, appeal participants will receive a copy of the Board packet and an agenda with the meeting location and start time. Once finalized, the meeting agenda will be posted on the Board's webpage <https://www.maine.gov/dep/bep/index.html>. Appeals will be considered based on the administrative record on appeal and oral argument at a regular meeting of the Board. *See* Chapter 2, Section 23(I). The Board may affirm all or part of the decision under appeal; affirm all or part of the decision under appeal with modifications, or new or additional conditions; order a hearing to be held as expeditiously as possible; reverse the decision under appeal; or remand the decision to the Commissioner or State Fire Marshal, as applicable, for further proceedings.

## II. JUDICIAL APPEALS

The filing of an appeal with the Board is not a prerequisite for the filing of a judicial appeal. Maine law generally allows aggrieved persons to appeal final license decisions to Maine's Superior Court (*see* [38 M.R.S. § 346\(1\)](#); [Chapter 2](#); [5 M.R.S. § 11001](#); and [M.R. Civ. P. 80C](#)). A judicial appeal by a party to the underlying proceeding must be filed with the Superior Court within 30 days of receipt of notice of the Board's or the Commissioner's decision. For any other aggrieved person, an appeal must be filed within 40 days of the date the decision was rendered. An appeal to court of a license decision regarding an expedited wind energy development, a general permit for an offshore wind energy demonstration project, or a general permit for a tidal energy demonstration project may only be taken directly to the Maine Supreme Judicial Court. *See* 38 M.R.S. § 346(4), the Maine Administrative Procedure Act, statutes governing a particular license decision, and the Maine Rules of Civil Procedure for substantive and procedural details applicable to judicial appeals.

### ADDITIONAL INFORMATION

If you have questions or need additional information on the appeal procedure, for administrative appeals contact the Board Clerk at [clerk.bep@maine.gov](mailto:clerk.bep@maine.gov) or 207-287-2811 or the Board Executive Analyst at [bill.hinkel@maine.gov](mailto:bill.hinkel@maine.gov) or 207-314-1458, or for judicial appeals contact the court clerk's office in which the appeal will be filed.

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**Note:** This information sheet, in conjunction with a review of the statutory and rule provisions referred to herein, is provided to help a person to understand their rights and obligations in filing an administrative or judicial appeal, and to comply with notice requirements of the Maine Administrative Procedure Act, 5 M.R.S. § 9061. This information sheet is not intended to supplant the parties' obligations to review and comply with all statutes and rules applicable to an appeal and insofar as there is any inconsistency between the information in this document and the applicable statutes and rules, the relevant statutes and rules apply.